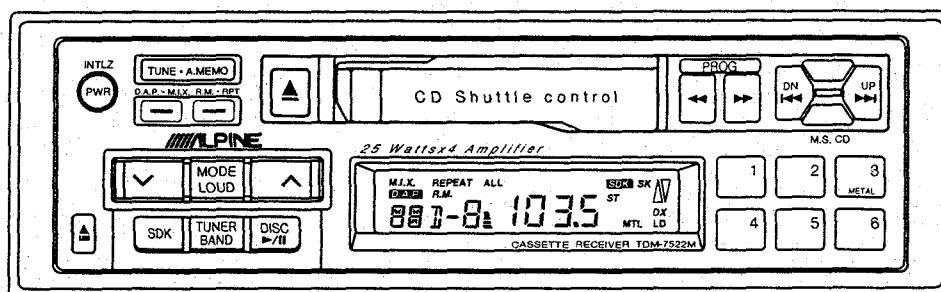


ALPINE[®] SERVICE MANUAL

FM/MW/LW/SDK Cassette Receiver

- For the cassette deck mechanism parts (GS75A010) of this model, refer to the Service Manual • GS Series (Part No. 68P61027W01).



TDM-7522M

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Specifications

FM RADIO

Intermediate Frequency	10.7MHz
Frequency Range	87.5~108MHz
Usable Sensitivity (30dB S/N, Mono, 98.1MHz)	16.2dBf
-3dB Limiting Sensitivity (98.1MHz)	23.2dBf
S/N Ratio (Stereo, 98.1MHz)	54dB
Image Rejection (106.1MHz)	40dB
IF Rejection (90.1MHz)	80dB
Distortion (Input 60dB μ , 98.1MHz)	1.8%
Frequency Response (98.1MHz, Ref. 400Hz)	100Hz : 0 \pm 3dB 10kHz : -13 \pm 5dB
SK Sensitivity (98.1MHz)	25.2dBf

MW RADIO

Intermediate Frequency	1st. 10.71MHz 2nd. 450kHz
Frequency Range	531~1,602kHz
Sensitivity (20dB S/N, 999kHz)	38dB
S/N Ratio (999kHz)	44dB
Image Rejection (1,404kHz, 2nd. IF)	50dB
IF Rejection (603kHz, 2nd. IF)	50dB
Distortion (999kHz)	1.5%
Frequency Response (999kHz, Ref. 400Hz)	100Hz : -3 \pm 4dB 4kHz : -15 \pm 6dB

LW RADIO

Intermediate Frequency	1st. 10.71MHz 2nd. 450kHz
Frequency Range	153~281kHz
Sensitivity (20dB S/N, 216kHz)	43dB
S/N Ratio (216kHz)	44dB
Image Rejection (270kHz, 2nd. IF)	50dB
IF Rejection (162kHz, 2nd. IF)	50dB
Distortion (216kHz)	1.5%
Frequency Response (216kHz, Ref. 400Hz)	100Hz : -5 \pm 4dB 4kHz : -15 \pm 6dB

TAPE PLAYER

Wow & Flutter (JIS, WRMS/MTT-111N)	0.35%
Tape Speed (MTT-111N)	4.76cm/sec. +3 to -1%
S/N Ratio	52dB
Distortion (MTT-118N)	2%
Frequency Response (Ref. 1kHz, -4dB)	63Hz~8kHz
Crosstalk (MTT-121N)	45dB
Separation (MTT-141N)	32dB

GENERAL

Power Supply	14.4V DC
Power Output/Impedance	11W/4ohm
Semiconductors	10IC's, 34Transistors, 24Diodes, 10Zener Diodes
Dimensions (W×H×D)	Nose : 188×58×24.7mm Chassis : 180×50×155mm
Weight	1.4kg

NOTE : Due to Continuing product improvement, specifications and designs are subject to change without notice.

Adjustment Procedures

1. FM SECTION

(1) Dummy Antenna Circuit

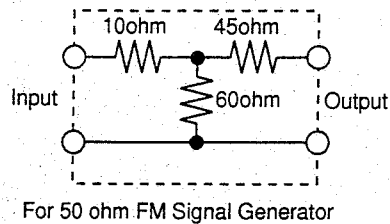


Figure 1

(2) Connections

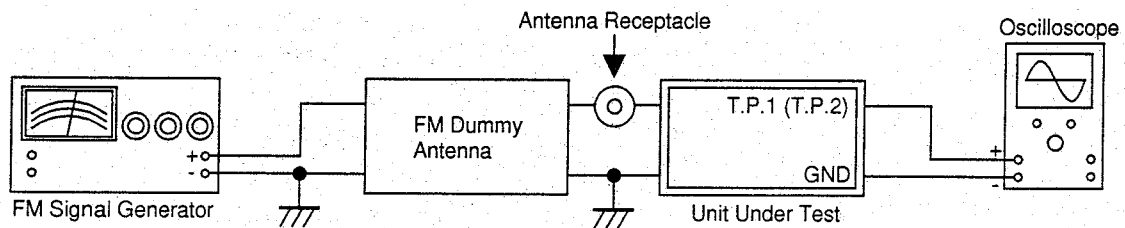


Figure 2

(3) Control Settings

Power Switch	..... ON	Bass Control	..... Center Position
Fader Control	..... Center Position	Band Switch	..... FM
Balance Control	..... Center Position	Others	..... OFF
Treble Control	..... Center Position		

(4) Adjustment Procedures

Step	Description	Connection	Signal Generator	Dial Control	Test Point	Adjustment
1	SK Adjustment	Figure 2	98.1MHz, 21dB (Mod. 400Hz, Dev. 40kHz, SK : ON, BK : ON, MONO)	98.1MHz	T.P.1	Adjust L501 for Maximum Waveform at T.P.1.
2	DK Adjustment	Figure 2	98.1MHz, 21dB (Mod. 400Hz, Dev. 40kHz, SK : ON, BK : ON, DK : ON)	98.1MHz	T.P.2	Adjust VR501 for Maximum Waveform at T.P.1.

2. TAPE PLAYER SECTION

(1) Connections

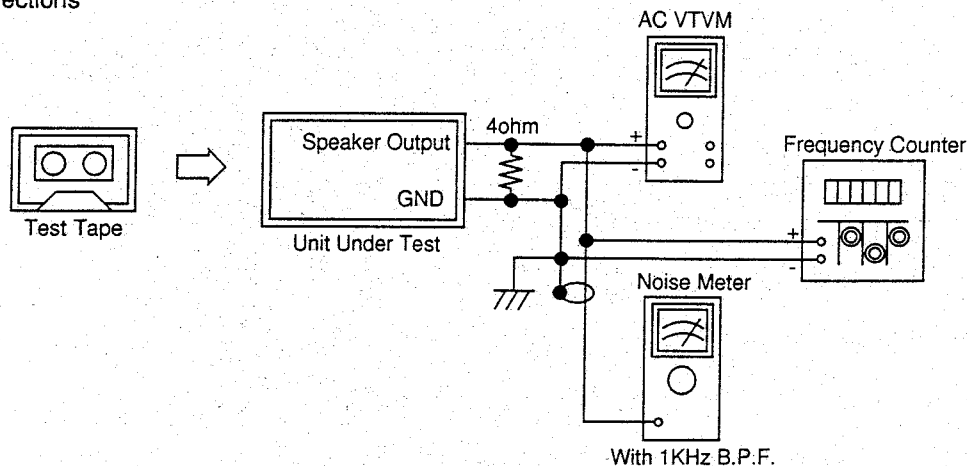


Figure 3

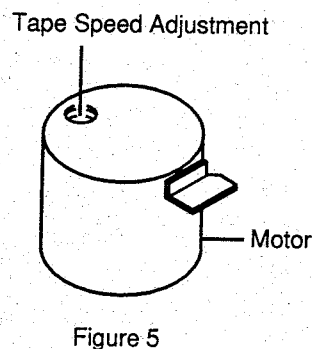
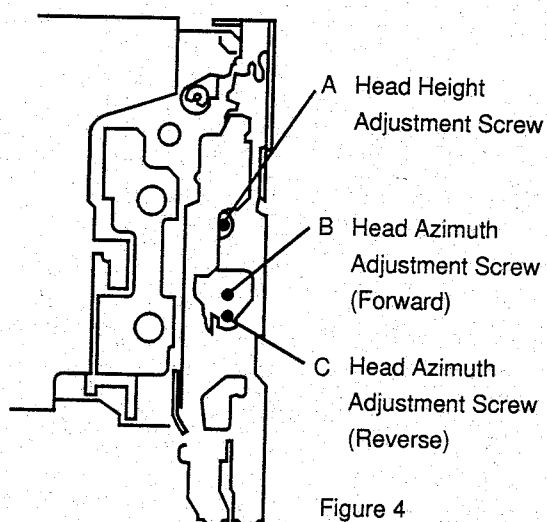
(2) Control Settings

Power Switch ON
 Fader Control Center Position
 Balance Control Center Position
 Treble Control Center Position
 Bass Control Center Position
 Others OFF

(3) Adjustment Procedures

Step	Description	Test Tape	Connection	Test Point	Adjustment Point	Adjustment
1	Head Azimuth Adjustment	(1) MTT-141N (1kHz)	Figure 3	Speaker Output	Head Height Adjustment Screw A (Figure 4)	Adjust until the Rch level obtains the Max. output with the test tape A-side played back in the reverse mode.
		(2) MTT-144 (10kHz)	Figure 3	Speaker Output	Head Azimuth Adjustment Screw B (Figure 4)	Adjust for Max. and same level output of Lch and Rch at Forward mode.
		(3) MTT-144 (10kHz)	Figure 3	Speaker Output	Head Azimuth Adjustment Screw C (Figure 4)	Adjust for Max. and same level output of Lch and Rch at Reverse mode.
		(4) MTT-141N (1kHz)	Figure 3	Speaker Output	—————	Confirm Lch and Rch output level difference is more than 42dB with the test tape A-side played back in the reverse mode. Proceed the same procedure as above with the test tape A-side played back in the reverse mode, B-side in the forward mode, and B-side in the reverse mode.
2	Tape Speed Adjustment	MTT-111N (3kHz)	Figure 3	Speaker Output (Lch or Rch)	Tape Speed Adjustment (Figure 5)	Adjust for 2,970 to 3,090 Hz at Speaker Output.

Adjustment Locations



NOTE : For the Adjustment parts (VR501, L501) and Test Points, refer to the Parts Layout on P.C.Boards and Wiring Diagram.

Description of IC Terminal

85210W01 : IC503

No.	Symbol	I/O	Terminal Description
1	GND	—	Ground terminal.
2			
3	$\overline{\text{ST}}$	I	Stereo signal input terminal. (H : MONO, L : STEREO)
4	NC	—	No connection.
5	SK	I	ARI SK signal input terminal. (H : SK ON, L : SK OFF)
6	DK	I	ARI DK signal input terminal. (H : DK ON, L : DK OFF)
7	NC	—	No connection.
8			
9			
10	CHG.D.OUT	O	CD Changer bus line output terminal.
11	CHG.D.IN	I	CD Changer bus line input terminal.
12	ACC	I	ACC power supply detection (Stand-by) terminal.
13	BATT	I	BATT power supply detection (Compulsion Stand-by) terminal.
14	METAL	O	Equalizing control output terminal. (For metal tape)
15	PACK-IN	I	PACK-IN detection terminal.
16	FOR / $\overline{\text{REV}}$	I	Indication control signal of TAPE running direction detection terminal.
17	MUTE-IN	I	Mute signal input terminal. (For GS Mechanism)
18	NC	—	No connection.
19			
20			
21	ALARM	O	Alarm signal output terminal. (L : Alarm OFF)
22	EV.DATA	O	Serial data output terminal for electrical volume (IC209).
23	EV.CLK	O	Serial clock output terminal for electrical volume (IC209).
24	NC	—	No connection.
25			
26	FM IF	I	FM IF signal input terminal. (at only FM tuning)
27	AM IF	I	AM IF signal input terminal. (at only AM tuning)
28	NC	—	No connection.
29	S-METER	I	Signal meter signal input terminal.
30	V _{DD1}	—	Power supply terminal.
31	AM OSC	I	AM OSC signal input terminal.
32	FM OSC	I	FM OSC signal input terminal.
33	GND	—	Ground terminal.
34	X OUT	O	Output terminal for system clock OSC.
35	X IN	I	Input terminal for system clock OSC.
36	E0	O	Charge pump output terminal for PLL synthesizer.

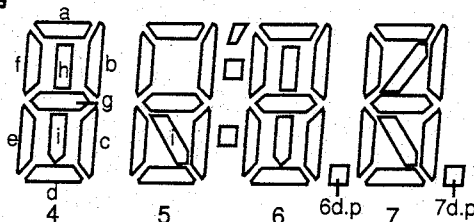
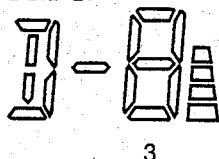
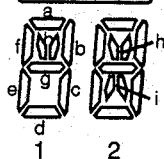
No.	Symbol	I/O	Terminal Description
37	NC	—	No connection.
38			
40			
41	V _{DD2}	—	Power supply terminal.
42	NC	—	No connection.
43			
44			
45	L / \overline{D}	O	SEEK switching terminal for LOCAL / DX. (H : Local, L : DX)
46	LW	O	L.P.F. switching terminal for LW Band. (H : LW, L : Others)
47	REQ	O	IF output control terminal. (H : FM/AM SEEK, L : During Receiver)
48	\overline{LW}	O	L.P.F. switching terminal for LW Band. (H : Others, L : LW)
49	FM / \overline{AM}	O	Power supply switching terminal. (For FM / AM) (H : FM, L : AM)
50	NC	—	No connection.
51			
53			
54	LCD INH	O	INH signal output terminal for LCD driver. (IC402)
55	LCD CE	O	CE signal output terminal for LCD driver. (IC402)
56	LCD DATA	O	DATA signal output terminal for LCD driver. (IC402)
57	LCD CLK	O	CLK signal output terminal for LCD driver. (IC402)
58	NC	—	No connection.
59			
69			
70	A. MUTE	O	Audio mute signal output terminal. (H : Output)
71	POWER IC ON	O	Stand-by control signal output terminal for Power IC. (IC210, 211)
72	POWER-CONT	O	Power supply control terminal.
73	NC	—	No connection.
74			
75	NOSE ON	I	Nose setting detection terminal.
76	KEY-IN A/D-1	I	Key matrix A/D port signal input terminal.
77	KEY-IN A/D-2		
78	KEY-IN A/D-3		
79	GND	—	Ground terminal.
80			

LCD Display

M.I.X. REPEAT ALL

D.A.P.

R.M.



SDK
ST

SK



DX

MTL LD

PAD No.	1	2	3	4	5	6	7	8	9
COM.1	COM.1		▽	LD			MTL	ST	
COM.2		COM.2	△	DX	SK			SDK	

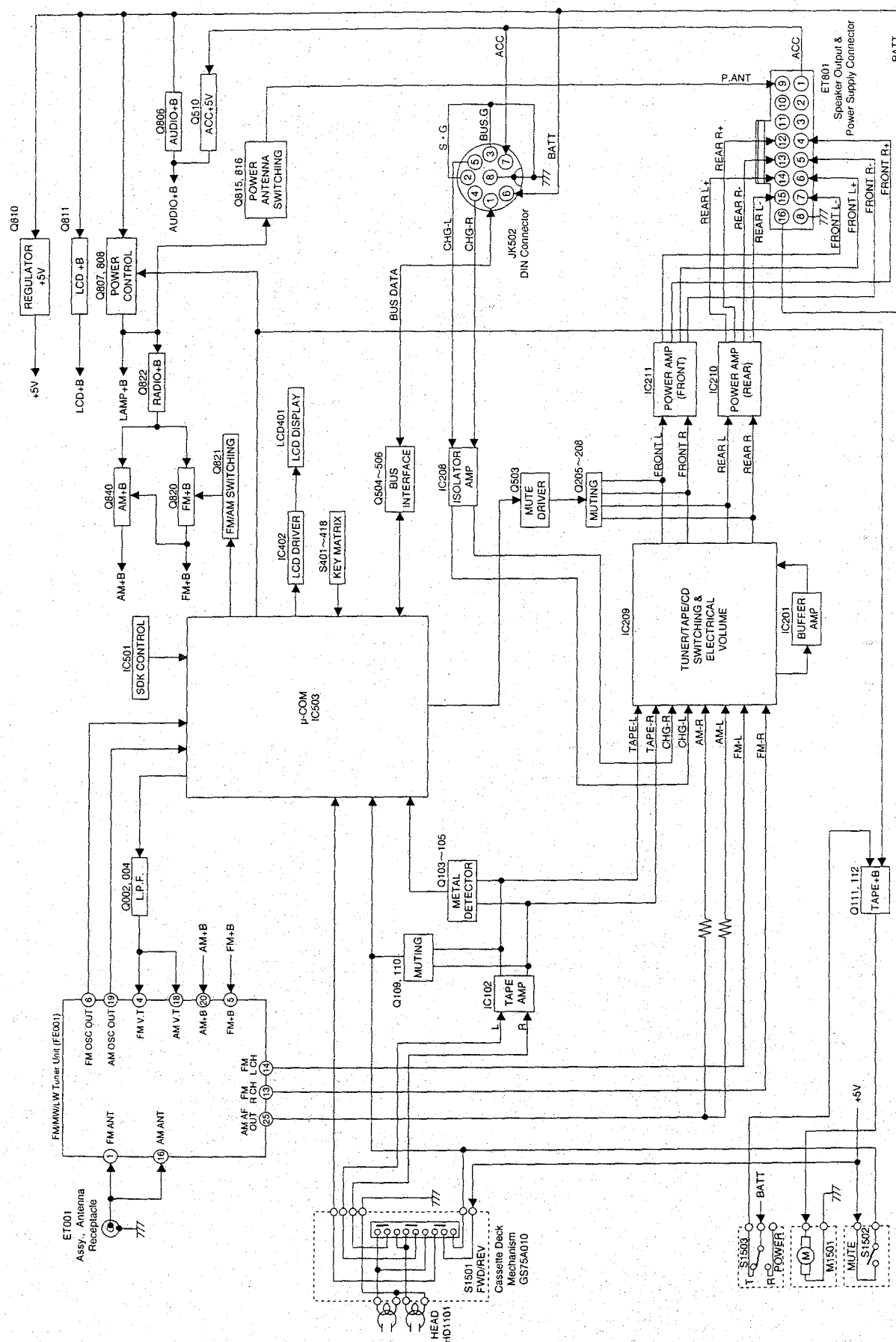
10	11	12	13	14	15	16	17	18
6d.p	7c	7b	7f	7e	6c	6b	6f	6e
7d.p	7h.i	7a	7g	7d	6h.i	6a	6g	6d

19	20	21	22	23	24	25	26	27
▮	5b	5f	5e	5c	4c	4b	4f	4e
▮	5a	5g	5d	5i	4h.i	4a	4g	4d

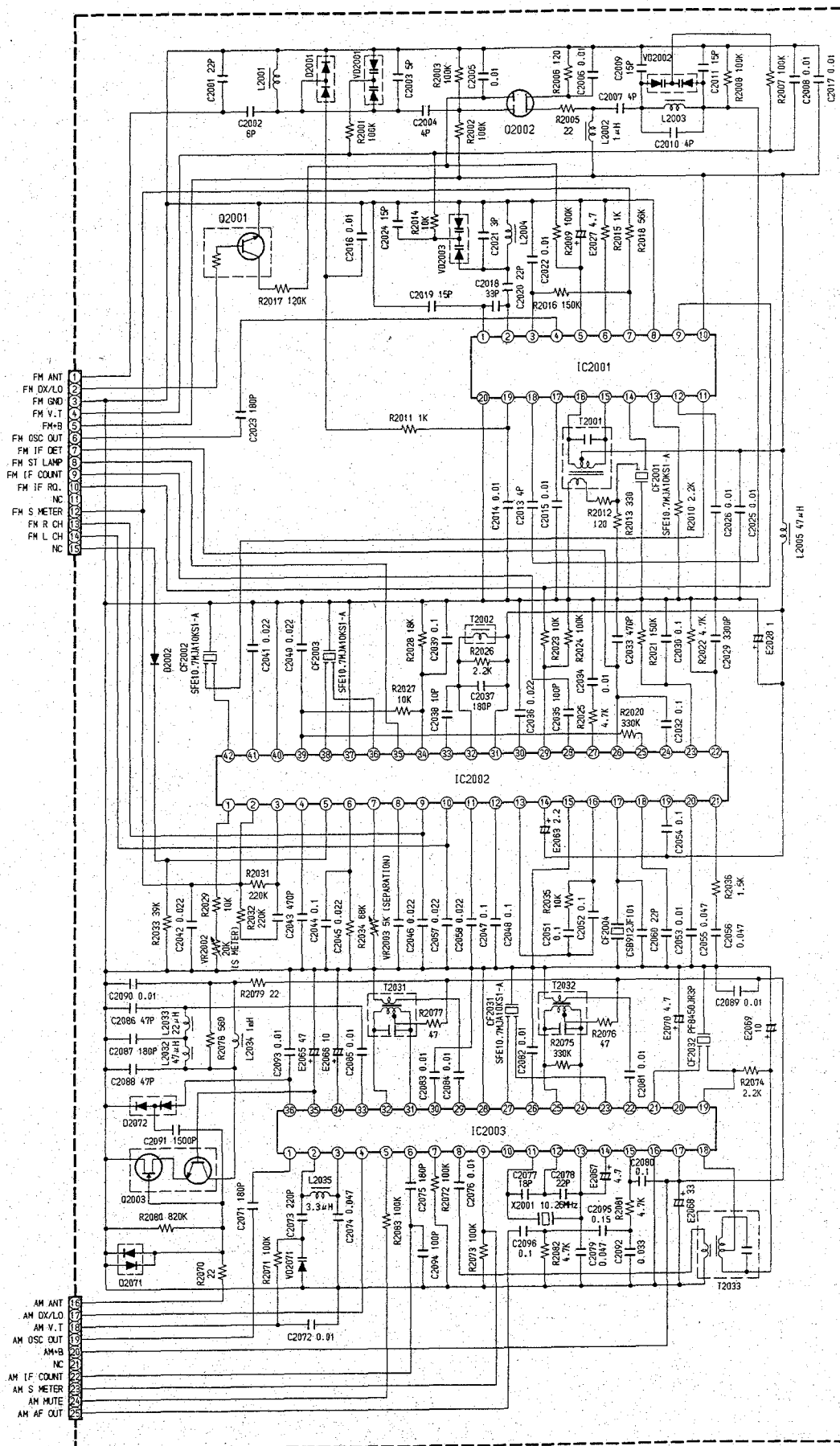
28	29	30	31	32	33	34	35	36
▮	3b	3g	3c	2d	R.M.	2i	2g	2h
ALL	3a.d	3f	3e	▮-	REPEAT	2c	2b	2a

37	38	39	40	41
D.A.P.	2f	1h	1e.f	1d
M.I.X.	2e	1a	1g	1d.c

Block Diagram

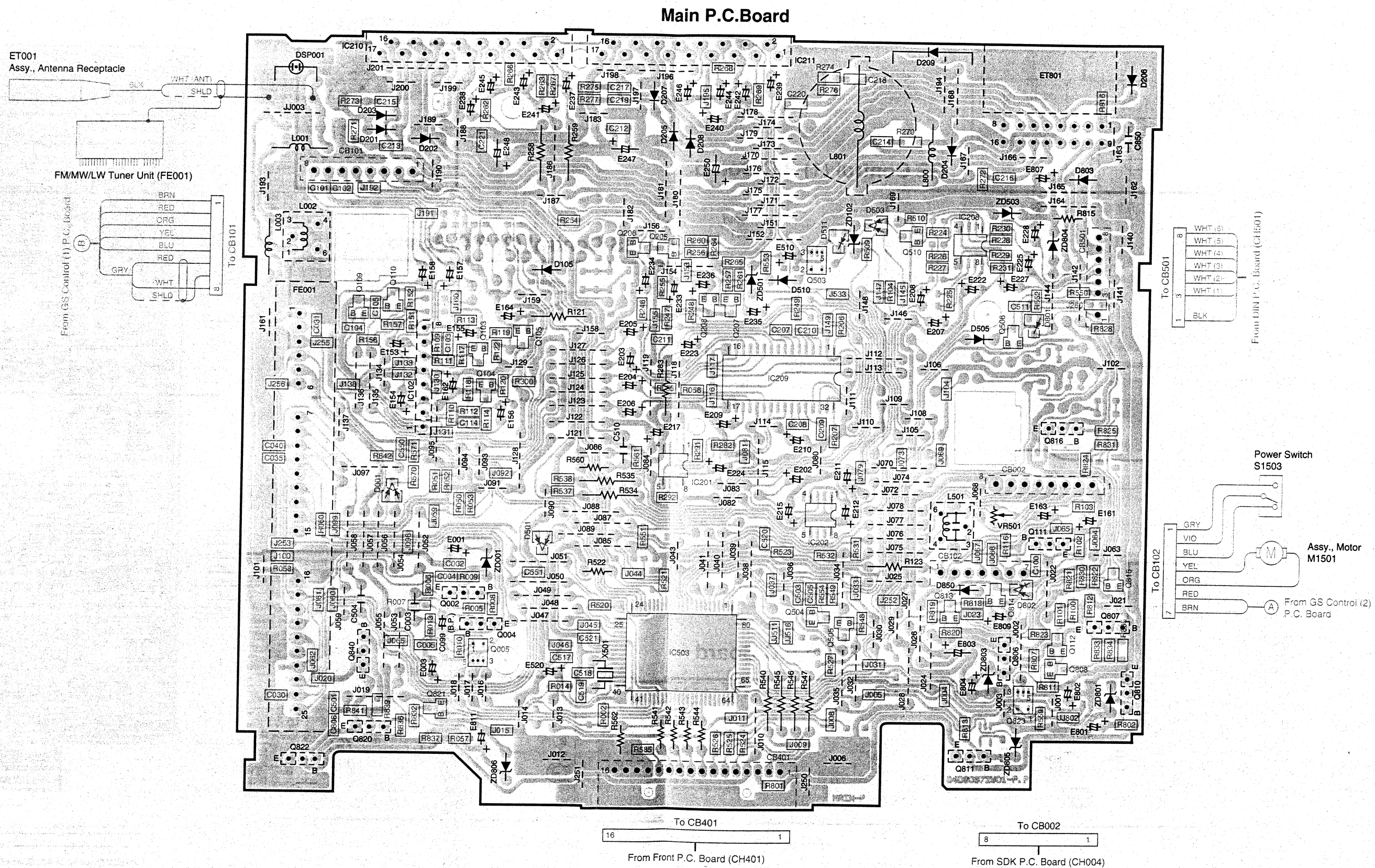


Tuner Schematic Diagram



Parts Layout on P.C. Boards and Wiring Diagram (1/2)

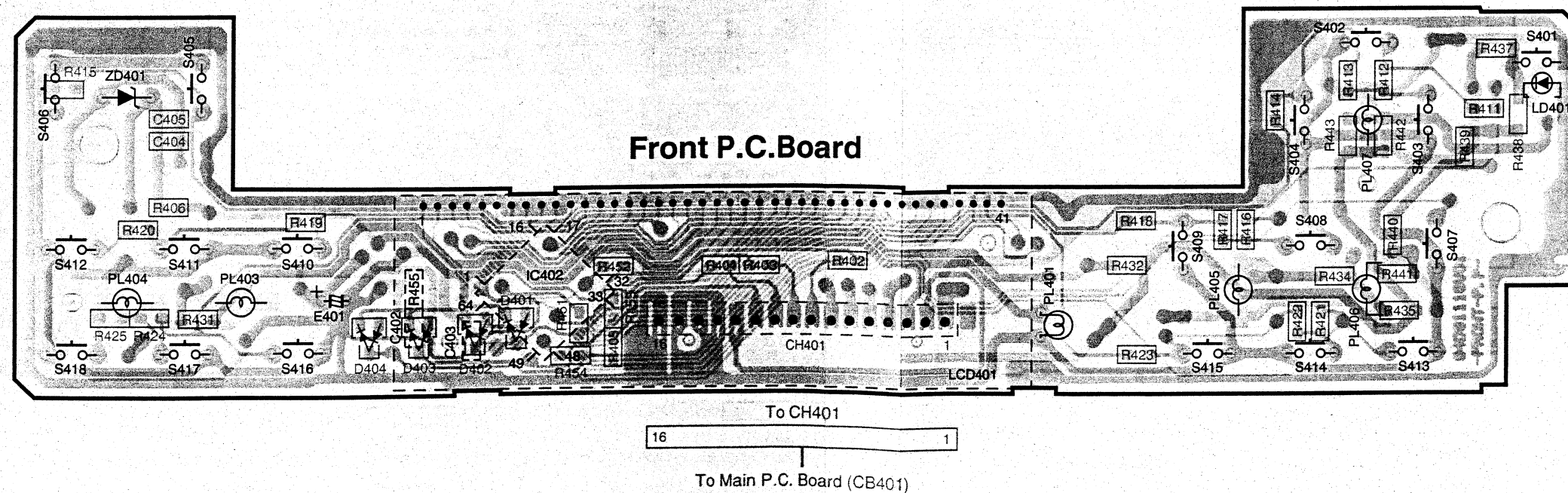
All P.C. Boards viewed from soldered side.



Blue Color Pattern : Foil Side Pattern

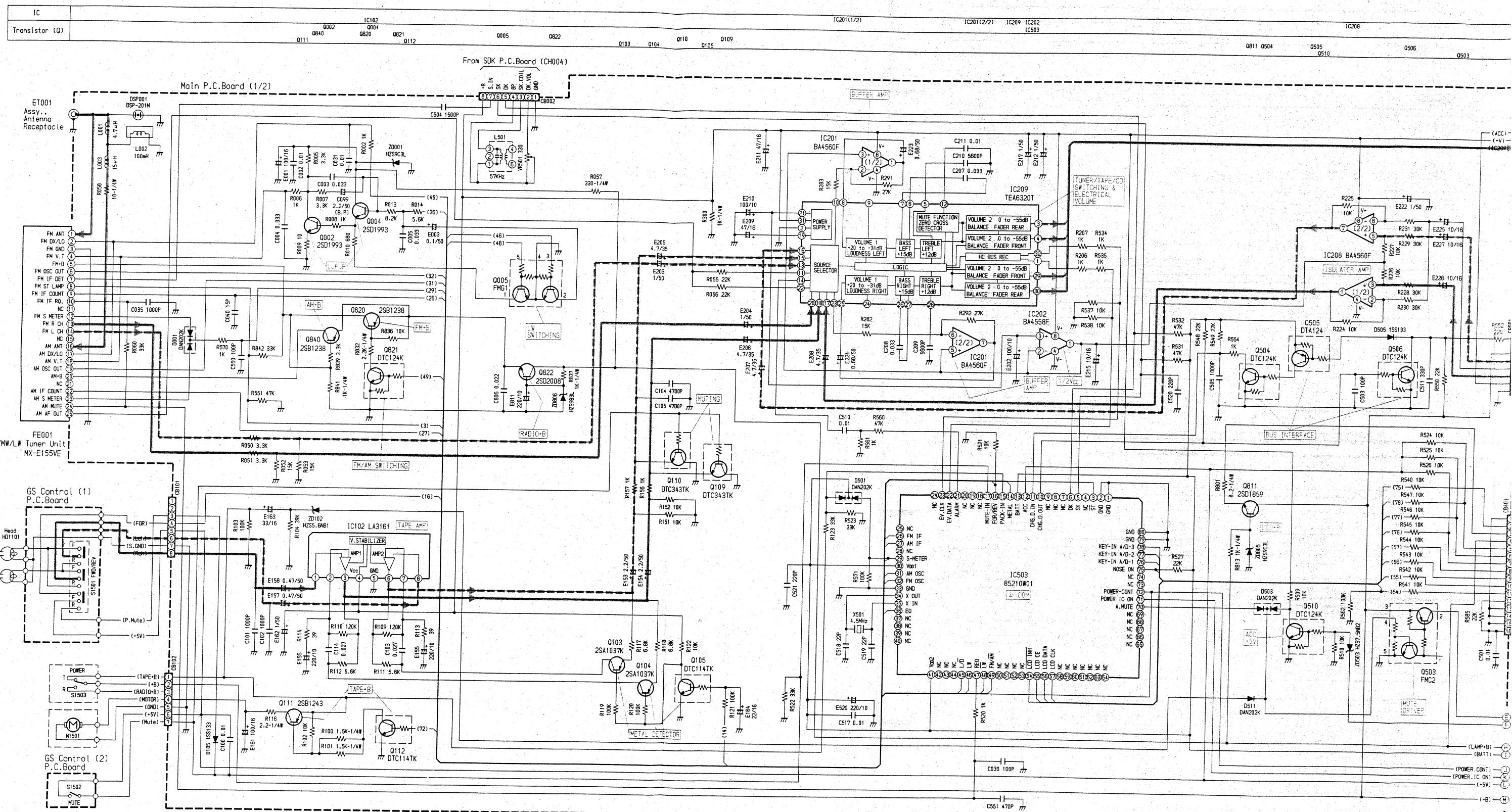
All P.C. Boards viewed from soldered side.

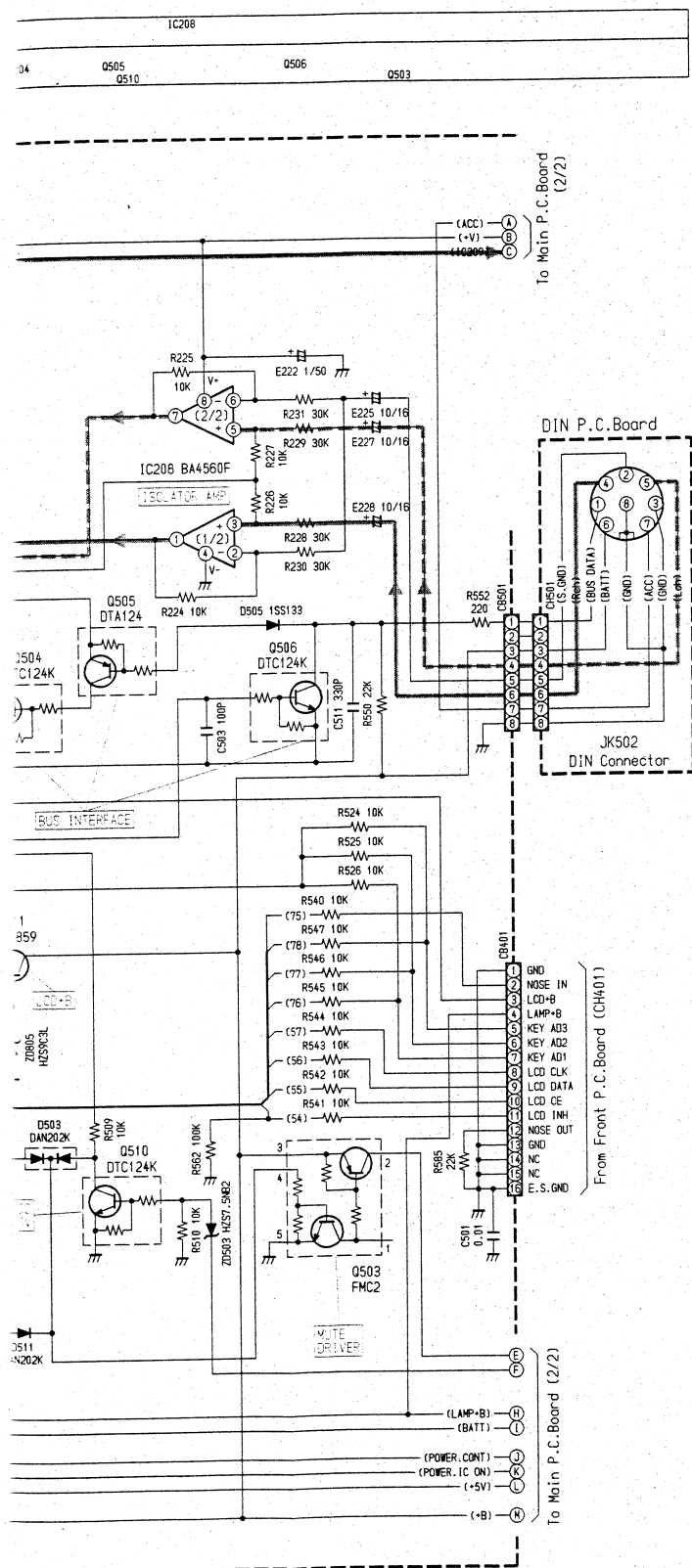
5



G

10





IC102

IC201

IC202

IC208

IC503

1	1.26V	1	4.37V	1	4.37V	1	4.37V	1	0V	MODE	41	5.04V	MODE
2	0.75V	2	4.37V	2	4.37V	2	PS	2	0V		42	NC	
3	3.27V	3	4.37V	3	4.37V	3	4.37V	3	5.14V/0.05V	MONO/ST	43	NC	
4	8.75V	4	0V	4	0V	4	0V	4	NC		44	NC	
5	0V	5	4.37V	5	NC	5	4.37V	5	0V		45	0V/4.84V	OTHERS/FM/LOCAL/SEEK
6	3.25V	6	4.37V	6	NC	6	PS	6	0V		46	4.98V/0V	LW/FM
7	0.75V	7	4.37V	7	NC	7	4.37V	7	NC		47	5V/0V	SEEK/OTHERS (FM)
8	1.26V	8	8.72V	8	8.72V	8	8.72V	8	NC		48	0V/4.98V	LW/FM

IC209

1	4.9V	9	NC	17	4.38V	25	4.27V
2	0V	10	4.39V	18	4.38V	26	4.39V
3	4.39V	11	4.38V	19	8.65V	27	4.4V
4	4.39V	12	8.69V	20	4.38V	28	4.39V
5	4.39V	13	4.38V	21	4.39V	29	4.4V
6	4.39V	14	4.38V	22	4.38V	30	4.4V
7	4.39V	15	4.38V	23	4.4V	31	8.75V
8	4.33V	16	4.38V	24	NC	32	4.9V

9	NC		49	4.94V/0V	FM/AM
10	0.04V		50	NC	
11	5.03V		51	NC	
12	4.96V/0V	ACC ON/OFF	52	NC	
13	5.04V		53	NC	
14	4.95V/0V	METAL ON/OFF	54	4.92V/0V	POW.ON/OFF
15	5.49V/0V	PACK-IN/OTHERS (FM)	55	0V	
16	4.95V/4.96V	FOR/REV	56	0V	
17	4.97V/0V	FF . REW/TAPE	57	0V	
18	NC		58	NC	
19	NC		59	NC	
20	NC		60	NC	
21	0V		61	NC	
22	4.9V/PS	OTHERS/VOL.UP/DN	62	NC	
23	4.91V/PS	OTHERS/VOL.UP/DN	63	NC	
24	NC		64	NC	
25	NC		65	NC	
26	2.72V/0V	SEEK/OTHERS (FM)	66	NC	
27	2.72V/0V	SEEK/OTHERS (AM)	67	NC	
28	NC		68	NC	
29	0.46V/5.11V	OTHERS (TAPE)/RADIO (FM)	69	NC	
30	5.05V		70	4.96V/0V	MUTE/OTHERS (RADIO/FM)
31	2.62V/0V	AM/OTHERS (TAPE)	71	4.84V/0V	POW.ON/OFF
32	2.01V/0V	FM/OTHERS (TAPE)	72	4.67V/0V	POW.ON/OFF
33	0V		73	NC	
34	PS		74	NC	
35	2.48V		75	2.71V/4.42V	NOISE.ON/OFF
36	PS		76	2.81V	
37	NC		77	2.81V	
38	NC		78	2.81V	
39	NC		79	0V	
40	NC		80	0V	

	E	C	B	MODE
Q002	0V	PS	PS	RADIO
Q004	PS	PS	PS	RADIO
Q103	3.25V/3.32V	3.25V/3.32V	2.71V/6.63V	METAL ON/OFF (TAPE)
Q104	3.19V/3.32V	3.19V/3.32V	2.64V/6.63V	METAL ON/OFF (TAPE)
Q105	0.00V	0.00V/6.72V	1.04V/0V	METAL ON/OFF (TAPE)
Q109	0.0V/0V	0.0V/0V	0.0V/96V	TAPE (PLAY)/FF.REW
Q110	0.0V/0V	0.0V/0V	0.0V/96V	TAPE (PLAY)/FF.REW
Q111	14.34V/0V	14.31V/0.26V	13.64V/0V	TAPE/(RADIO)
Q112	0V	0V	4.64V	POWER ON
Q504	0V	PS	PS	CD
Q505	5.04V	0V	PS	CD
Q506	0V	PS	0V	CD
Q510	0.0V/0V	0.0V/0V	3.92V/0V	ACC ON/OFF
Q811	8.99V/0V	13.13V/14.93V	9.62V/0V	POWER ON/OFF
Q820	8.67V	8.63V	7.97V	RADIO (FM)
Q821	0V	0V	4.93V	RADIO (FM)
Q822	8.67V	13.4V	9.26V	RADIO
Q840	8.3V/8.3V	0.0V/8.3V	8.3V/7.5V	FM/AM

[Measuring Conditions]

- Power Supply Voltage : DC14.4V
- Measuring Meter : Digital Multi Meter
- Measuring Point Reference: Between Ground
- Measuring Conditions : No Signal Input

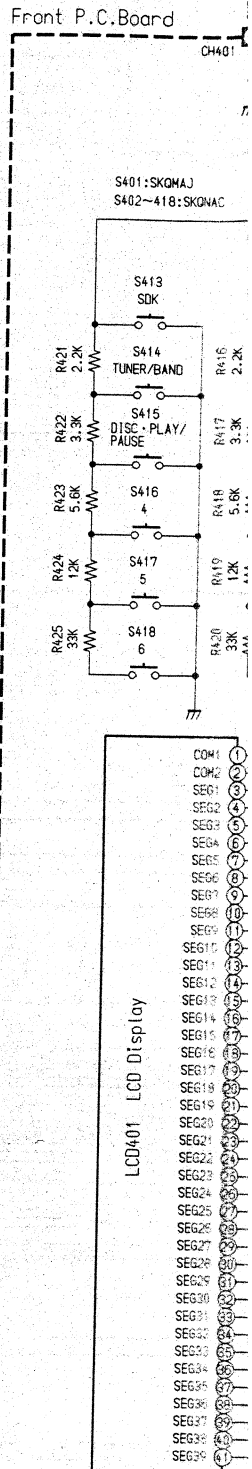
FM 98.1MHz
MW 999kHz
LW 216kHz
Tape Blank

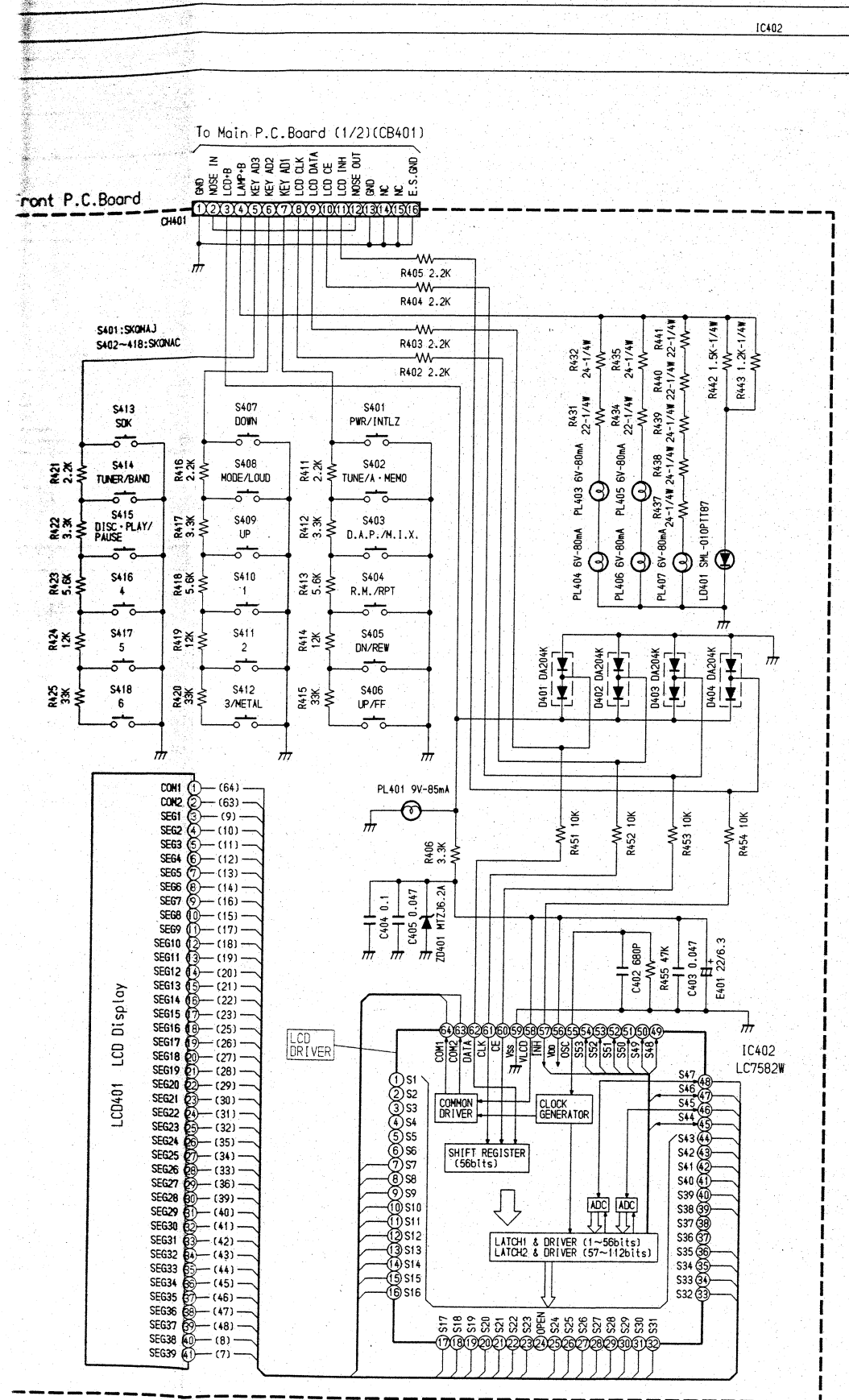
	1	2	3	4	5	MODE
Q005	4.98V/0V	0V/0V	4.98V/0V	0V/0V	0V/4.98V	LW/FM
Q503	NC	14.21V/0.06V	14.25V/14.25V	4.4V/0V	0V/0V	MUTE ON/OFF

NOTE:

NOTE:

1. All resistance values are in ohms. $K = 1,000$
2. All capacitance values are in microfarads. $P = \frac{1}{1,000,000}$





IC402

1-6	NC
7-23	PS
24	NC
25-36	PS
37,38	NC
39-48	PS
49-54	NC
55	5V
56	5.22V
57	5.01V
58	5.22V
59	0V
60-64	PS

IC501

1	0V	11	0V
2	0.05V	12	4.34V
3	0.04V	13	5.44V
4	0V	14	4.24V
5	4.39V	15	4.32V
6	4.37V	16	4.37V
7	8.73V	17	4.37V
8	4.37V	18	0V
9	5.47V	19	3.64V
10	5.47V	20	0V

IC210

1	NC	10	14.4V
2	4.93V	11	5.98V
3	5.02V	12	6.03V
4	4.9V	13	0V
5	0V	14	0V
6	5V	15	5.99V
7	4.95V	16	6V
8	5V	17	14.4V
9	14.4V		

IC211

1	NC	10	14.4V
2	4.88V	11	5.97V
3	4.9V	12	6.01V
4	4.9V	13	0V
5	0V	14	0V
6	5.04V	15	5.98V
7	4.98V	16	6V
8	5.02V	17	14.4V
9	14.4V		

Q823

1	NC
2	4.95V/0V
3	5.05V/5.1V
4	4.8V/0V
5	0V/0V

MODE : ACC ON/OFF

	E	C	B	MODE
Q205	0V/0V	0V/0V	5.2V/0V	MUTE ON/OFF
Q206	0V/0V	0V/0V	5.2V/0V	MUTE ON/OFF
Q207	0V/0V	0V/0V	5.2V/0V	MUTE ON/OFF
Q208	0V/0V	0V/0V	5.2V/0V	MUTE ON/OFF
Q502	0V	4.4V	0V	
Q806	8.65V/0V	14.44V/14.93V	9.26V/0V	POWER ON/OFF
Q807	14.44V/14.93V	14.38V/0V	13.72V/14.9V	POWER ON/OFF
Q808	0V/0V	0V/14.9V	4.65V/0V	POWER ON/OFF
Q810	4.97V	13.55V	5.55V	RADIO
Q813	14.09V/14.33V	0V/14.32V	13.71V/13.6V	OTHER/PROTECT CIRCUIT ON
Q814	0V/0V	13.34V/0V	0V/10.2V	OTHER/PROTECT CIRCUIT ON
Q815	0V	0V	7.2V	POW ON
Q816	12.96V	12.85V	12.23V	POW ON

[Measuring Conditions]

- Power Supply Voltage : DC14.4V
- Measuring Meter : Digital Multi Meter
- Measuring Point Reference : Between Ground
- Measuring Conditions : No Signal Input
- FM : 98.1MHz
- MW : 999kHz
- LW : 216kHz
- Tape : Blank

NOTE:

- All resistance values are in ohms. K = 1,000
- All capacitance values are in microfarads. P = 1,000,000

Electrical Parts List

Resistor : Carbon resistors under 1/4 watts are not mentioned in the parts list, please confirm them by schematic diagram.

Capacitor : „F=microfarads,pF=picofarads

Abbreviations			Symbol No.	Part No.	Description
RES.= Resistor	CAP.= Capacitor		Q810	48T83835F03	2SD1859
C.F.= Carbon Film	ELY.= Electrolytic		Q811	48T83835F03	2SD1859
M.F.= Metal Film	CER.= Ceramic		Q813	48T63420F01	CP., 2SA1037K
M.O.= Metal Oxide Film	MYL.= Mylar		Q814	48T62967F03	CP., DTC124K
M.P.= Metal Plate	TAN.= Tantalum		Q815	48T62967F02	CP., DTC114K
TR.= Transistor	POLY.= Polystyrol		Q816	48T84366F04	2SB1243
TRANS.= Transformer	PP.= Polypropylene		Q820	48T84234F03	2SB1238
CP.= Chip	PLT.= Polyethylene		Q821	48T62967F03	CP., DTC124K
	PF.= Polyester Film		Q822	48T15289W03	2SD2008
			Q823	48T73888F12	CP., FMC2
Symbol No.	Part No.	Description	Q840	48T84234F03	2SB1238
Main P.C.Board			Diodes / Surge Protector		
IC's			D001	48T63462F01	CP., DAN202K
IC102	51T65025W01	LA3161	D105	48T68828F01	1SS133
IC201	51T92001F11	BA4560F	D201	48T84052F01	11ES2TA1
IC202	51T65379F11	BA4558F	D202	48T84052F01	11ES2TA1
IC208	51T92001F11	BA4560F	D203	48T84052F01	11ES2TA1
IC209	51T65131W01	TEA6320T	D204	48T84052F01	11ES2TA1
IC210	51T35133W02	TA8215H	D205	48T84052F01	11ES2TA1
or	51T65310W01	MC13309T	D206	48T84052F01	11ES2TA1
IC211	51T35133W02	TA8215H	D207	48T84052F01	11ES2TA1
or	51T65310W01	MC13309T	D208	48T84052F01	11ES2TA1
IC503	51T85210W01	85210W01	D209	48T68580F03	DSA3A4
Transistors			D501	48T63462F01	CP., DAN202K
Q002	48T90181F05	2SD1993	D503	48T63462F01	CP., DAN202K
Q004	48T90181F05	2SD1993	D505	48T68828F01	1SS133
Q005	48T73888F08	CP., FMG1	D510	48T68828F01	1SS133
Q103	48T63420F01	CP., 2SA1037K	D511	48T63462F01	CP., DAN202K
Q104	48T63420F01	CP., 2SA1037K	D801	48T63462F01	CP., DAN202K
Q105	48T62967F09	CP., DTC114TK	D802	48T64134F01	CP., DA204K
Q109	48T62967F33	CP., DTC343TK	D803	48T84052F01	11ES2TA1
Q110	48T62967F33	CP., DTC343TK	D850	48T68828F01	1SS133
Q111	48T84366F04	2SB1243	ZD001	48T83128F27	Zener, HZS9C3L
Q112	48T62967F09	CP., DTC114TK	ZD102	48T90517F26	Zener, HZS5.6NB1
Q205	48T62967F33	CP., DTC343TK	ZD501	48T90517F07	Zener, HZS2.7NB1
Q206	48T62967F33	CP., DTC343TK	ZD503	48T90517F36	Zener, HZS7.5NB2
Q207	48T62967F33	CP., DTC343TK	ZD801	48T83128F03	Zener, HZS6A3L
Q208	48T62967F33	CP., DTC343TK	ZD803	48T83128F24	Zener, HZS9B3L
Q503	48T73888F12	CP., FMC2	ZD804	48T26033W32	Zener, MTZJ6.8A
Q504	48T62967F03	CP., DTC124K	ZD805	48T83128F27	Zener, HZS9C3L
Q505	48T62966F03	CP., DTA124	ZD806	48T83128F24	Zener, HZS9B3L
Q506	48T62967F03	CP., DTC124K	DSP001	48T81909F01	Surge Protector, DSP-201M
Q510	48T62967F03	CP., DTC124K			
Q806	48T83835F03	2SD1859			
Q807	48T84366F04	2SB1243			
Q808	48T62967F05	CP., DTC143XK			

Symbol No.	Part No.	Description	Symbol No.	Part No.	Description
Coils					
L001	24T50508F18	Inductor, 4.7μH	E206	23S75372W09	ELY., 4.7μF / 35V
L002	24T94308F01	Inductor, 100mH	C207	08T15399W02	CP., 0.033μF
L003	24T50508F24	Inductor, 15μH	E207	23S75372W09	ELY., 4.7μF / 35V
L501	24T84175F51	57kHz	C208	08T15399W02	CP., 0.033μF
L800	24T35072W01	FBI, BL01RN1	E208	23S75372W09	ELY., 4.7μF / 35V
L801	24T75055W03	Choke	C209	08S65128F66	CP., 5600pF
			E209	23S75372W07	ELY., 47μF / 16V
			C210	08S53332F44	CP., 5600pF
			E210	23S75372W02	ELY., 100μF / 10V
			C211	08S53332F47	CP., 0.01μF
Crystal			E211	23S75372W07	ELY., 47μF / 16V
X501	91T45118W23	4.5MHz	C212	08T15807W05	CP., 0.1μF
			E212	23S75372W15	ELY., 1μF / 50V
			C213	08T65020W07	CP., 0.15μF
			C214	08T65020W07	CP., 0.15μF
Capacitors			C215	08T65020W07	CP., 0.15μF
E001	23S75372W08	ELY., 100μF / 16V	E215	23S75372W04	ELY., 10μF / 16V
C002	08S65128F69	CP., 0.01μF	C216	08T65020W07	CP., 0.15μF
C003	08T55390W23	TF, 0.033μF	C217	08T65020W07	CP., 0.15μF
E003	23S75372W10	ELY., 0.1μF / 50V	E217	23S75372W15	ELY., 1μF / 50V
C004	08T15399W02	CP., 0.033μF	C218	08T65020W07	CP., 0.15μF
C005	08T15399W02	CP., 0.033μF	C219	08T65020W07	CP., 0.15μF
C030	08S65128F35	CP., 100pF	C220	08T65020W07	CP., 0.15μF
C031	08S65128F69	CP., 0.01μF	C221	08T15807W05	CP., 0.1μF
C035	08S53332F35	CP., 1000pF	E222	23S75372W15	ELY., 1μF / 50V
C040	08S53332F13	CP., 15pF	E223	23S75372W14	ELY., 0.68μF / 50V
C099	23S82372F19	ELY., (B.P) 2.2μF / 50V	E224	23S75372W14	ELY., 0.68μF / 50V
C100	08S65128F69	CP., 0.01μF	E225	23S75372W04	ELY., 10μF / 16V
C101	08S65128F57	CP., 1000pF	E227	23S75372W04	ELY., 10μF / 16V
C102	08S65128F57	CP., 1000pF	E228	23S75372W04	ELY., 10μF / 16V
C103	08T15399W04	CP., 0.027μF	E233	23S75372W04	ELY., 10μF / 16V
C104	08S65128F65	CP., 4700pF	E234	23S75372W04	ELY., 10μF / 16V
C105	08S65128F65	CP., 4700pF	E235	23S75372W04	ELY., 10μF / 16V
C114	08T15399W04	CP., 0.027μF	E236	23S75372W04	ELY., 10μF / 16V
E153	23S75372W16	ELY., 2.2μF / 50V	E237	23T55405W15	ELY., 1μF / 50V
E154	23S75372W16	ELY., 2.2μF / 50V	E238	23T55405W15	ELY., 1μF / 50V
E155	23S75372W03	ELY., 220μF / 10V	E239	23T55405W15	ELY., 1μF / 50V
E156	23S75372W03	ELY., 220μF / 10V	E240	23T55405W15	ELY., 1μF / 50V
E157	23S75372W13	ELY., 0.47μF / 50V	E241	23T55405W01	ELY., 10μF / 16V
E158	23S75372W13	ELY., 0.47μF / 50V	E242	23T55405W01	ELY., 10μF / 16V
E161	23S75372W08	ELY., 100μF / 16V	E243	23T55405W01	ELY., 10μF / 16V
E162	23S75372W15	ELY., 1μF / 50V	E244	23T55405W01	ELY., 10μF / 16V
E163	23S75373W04	ELY., 33μF / 16V	E245	23T94181F40	ELY., 220μF / 10V
E164	23S75372W05	ELY., 22μF / 16V	E246	23T94181F40	ELY., 220μF / 10V
E202	23S75372W02	ELY., 100μF / 10V	E247	23T75346W01	ELY., 2200μF / 16V
E203	23S75372W15	ELY., 1μF / 50V	E248	23T75346W01	ELY., 2200μF / 16V
E204	23S75372W15	ELY., 1μF / 50V	E250	23T75479W26	ELY., 330μF / 16V
E205	23S75372W09	ELY., 4.7μF / 35V	C501	08S65128F69	CP., 0.01μF
			C503	08S65128F35	CP., 100pF

Symbol No.	Part No.	Description	Symbol No.	Part No.	Description
C504	08T55390W07	PF., 1500pF	R104	06S64995F91	39K ohm
C505	08S65128F57	CP., 1000pF	R109	06S64996F04	120K ohm
C510	08S65480F61	CER., 0.01μF	R110	06S64996F04	120K ohm
E510	23S75372W13	ELY., 0.47μF / 50V	R111	06S64995F71	5.6K ohm
C511	08S65128F47	CP., 330pF	R112	06S64995F71	5.6K ohm
C517	08S65128F69	CP., 0.01μF	R113	06S64995F19	39 ohm
C518	08S82122F21	CP., 22pF	R114	06S64995F19	39 ohm
C519	08S82122F21	CP., 22pF	R116	06S70072F78	2.2 ohm 1/4W
C520	08S53332F27	CP., 220pF	R117	06S64995F73	6.8K ohm
E520	23S75372W03	ELY., 220μF / 10V	R118	06S53330F73	6.8K ohm 1/8W
C521	08S53332F27	CP., 220pF	R119	06S64996F02	100K ohm
C550	08S65128F35	CP., 100pF	R120	06S64996F02	100K ohm
C551	08S65128F51	CP., 470pF	R122	06S64995F77	10K ohm
E801	23S75373W13	ELY., 1μF / 50V	R151	06S64995F77	10K ohm
E802	23S75373W07	ELY., 4.7μF / 35V	R152	06S64995F77	10K ohm
E803	23T75479W26	ELY., 330μF / 16V	R156	06S64995F53	1K ohm
E804	23S75373W02	ELY., 10μF / 16V	R157	06S64995F53	1K ohm
C806	08T15399W01	CP., 0.022μF	R206	06S53330F53	1K ohm 1/8W
E807	23S75373W08	ELY., 0.1μF / 50V	R207	06S53330F53	1K ohm 1/8W
E809	23S75373W02	ELY., 10μF / 16V	R224	06S64995F77	10K ohm
E811	23S75372W03	ELY., 220μF / 10V	R225	06S64995F77	10K ohm
C850	08T55390W17	PF., 0.01μF	R226	06S64995F77	10K ohm
(All resistors are chip 1/10W±5% unless otherwise noted.)			R227	06S64995F77	10K ohm
Resistors			R228	06S64995F88	30K ohm
R002	06S53330F53	1K ohm 1/8W	R229	06S64995F88	30K ohm
R005	06S64995F65	3.3K ohm	R230	06S64995F88	30K ohm
R006	06S64995F53	1K ohm	R231	06S53330F88	30K ohm 1/8W
R007	06S64995F65	3.3K ohm	R246	06S64995F37	220 ohm
R008	06S64995F53	1K ohm	R247	06S53330F37	220 ohm 1/8W
R009	06S64995F05	10 ohm	R248	06S53330F37	220 ohm 1/8W
R010	06S64995F49	680 ohm	R249	06S53330F37	220 ohm 1/8W
R013	06S64995F75	8.2K ohm	R254	06S64995F67	3.9K ohm
R014	06S53330F71	5.6K ohm 1/8W	R255	06S64995F67	3.9K ohm
R050	06S64995F65	3.3K ohm	R256	06S64995F67	3.9K ohm
R051	06S64995F65	3.3K ohm	R257	06S64995F67	3.9K ohm
R052	06S64995F81	15K ohm	R260	06S64995F65	3.3K ohm
R053	06S64995F81	15K ohm	R261	06S64995F65	3.3K ohm
R055	06S64995F85	22K ohm	R262	06S64995F61	2.2K ohm
R056	06S64995F85	22K ohm	R263	06S64995F61	2.2K ohm
R057	06S70072F41	330 ohm 1/4W	R264	06S64995F61	2.2K ohm
R058	06S70072F05	10 ohm 1/4W	R265	06S64995F61	2.2K ohm
R060	06S53330F89	33K ohm 1/8W	R266	06S64995F57	1.5K ohm
R100	06S70072F57	1.5K ohm 1/4W	R267	06S64995F57	1.5K ohm
R101	06S70072F57	1.5K ohm 1/4W	R268	06S64995F57	1.5K ohm
R102	06S64995F77	10K ohm	R269	06S64995F57	1.5K ohm
R103	06S64996F02	100K ohm	R270	06S53331F40	2.2 ohm 1/8W
			R271	06S53331F40	2.2 ohm 1/8W
			R272	06S53331F40	2.2 ohm 1/8W
			R273	06S53331F40	2.2 ohm 1/8W

Symbol No.	Part No.	Description	Symbol No.	Part No.	Description
R274	06S53331F40	2.2 ohm 1/8W	R830	06S70072F03	6.8 ohm 1/4W
R275	06S53331F40	2.2 ohm 1/8W	R831	06S70072F59	1.8K ohm 1/4W
R276	06S53331F40	2.2 ohm 1/8W	R832	06S70072F61	2.2K ohm 1/4W
R277	06S53331F40	2.2 ohm 1/8W	R833	06S70072F59	1.8K ohm 1/4W
R282	06S53330F81	15K ohm 1/8W	R834	06S70072F59	1.8K ohm 1/4W
R291	06S64995F87	27K ohm	R835	06S70072F59	1.8K ohm 1/4W
R292	06S64995F87	27K ohm	R836	06S64995F77	10K ohm
R300	06S70072F53	1K ohm 1/4W	R837	06S70072F53	1K ohm 1/4W
R509	06S64995F77	10K ohm	R839	06S64995F65	3.3K ohm
R510	06S64995F77	10K ohm	R841	06S70072F53	1K ohm 1/4W
R520	06S64995F53	1K ohm	R842	06S64995F89	33K ohm
R521	06S53330F77	10K ohm 1/8W	VR501	18T81060F04	Variable, 330 ohm
R523	06S64995F89	33K ohm	Front P.C.Board		
R524	06S53330F77	10K ohm 1/8W	IC		
R525	06S53330F77	10K ohm 1/8W	IC402	51T83905F03	LC7582W
R526	06S53330F77	10K ohm 1/8W	Diodes		
R527	06S64995F85	22K ohm	D401	48T64134F01	CP., DA204K
R531	06S64995F93	47K ohm	D402	48T64134F01	CP., DA204K
R532	06S64995F93	47K ohm	D403	48T64134F01	CP., DA204K
R537	06S64995F77	10K ohm	D404	48T64134F01	CP., DA204K
R538	06S64995F77	10K ohm	ZD401	48T45012W29	Zener, MTZJ6.2A
R548	06S64995F85	22K ohm	Switches		
R549	06S64995F85	22K ohm	S401	40T55656W03	Tact, CP. SKQMAJ (PWR/INTLZ)
R550	06S53330F85	22K ohm 1/8W	S402	40T75234W01	Tact, SKQNAC (TUNE/A.MEMO)
R551	06S53330F93	47K ohm 1/8W	S403	40T75234W01	Tact, SKQNAC (D.A.P./M.I.X.)
R552	06S64995F37	220 ohm	S404	40T75234W01	Tact, SKQNAC (R.M./RPT)
R553	06S64995F53	1K ohm	S405	40T75234W01	Tact, SKQNAC (DN/REW)
R554	06S64995F53	1K ohm	S406	40T75234W01	Tact, SKQNAC (UP/FF)
R559	06S53331F02	100K ohm 1/8W	S407	40T75234W01	Tact, SKQNAC (DOWN)
R561	06S64995F53	1K ohm	S408	40T75234W01	Tact, SKQNAC (MODE/LOUD)
R570	06S64995F53	1K ohm	S409	40T75234W01	Tact, SKQNAC (UP)
R571	06S64996F02	100K ohm	S410	40T75234W01	Tact, SKQNAC (1)
R585	06S64995F85	22K ohm	S411	40T75234W01	Tact, SKQNAC (2)
R801	06S70072F04	8.2 ohm 1/4W	S412	40T75234W01	Tact, SKQNAC (3/METAL)
R802	06S53330F75	8.2K ohm 1/8W	S413	40T75234W01	Tact, SKQNAC (SDK)
R807	06S70072F61	2.2K ohm 1/4W	S414	40T75234W01	Tact, SKQNAC (TUNER/BAND)
R811	06S64996F02	100K ohm	S415	40T75234W01	Tact, SKQNAC (DISC • PLAY/PAUSE)
R812	06S53330F77	10K ohm 1/8W	S416	40T75234W01	Tact, SKQNAC (4)
R813	06S70072F53	1K ohm 1/4W	S417	40T75234W01	Tact, SKQNAC (5)
R816	06S53330F77	10K ohm 1/8W	S418	40T75234W01	Tact, SKQNAC (6)
R818	06S64995F77	10K ohm			
R819	06S70072F61	2.2K ohm 1/4W			
R820	06S64995F77	10K ohm			
R821	06S70072F03	6.8 ohm 1/4W			
R822	06S70072F03	6.8 ohm 1/4W			
R823	06S64995F77	10K ohm			
R824	06S64995F77	10K ohm			
R825	06S70072F59	1.8K ohm 1/4W			
R828	06S53330F77	10K ohm 1/8W			

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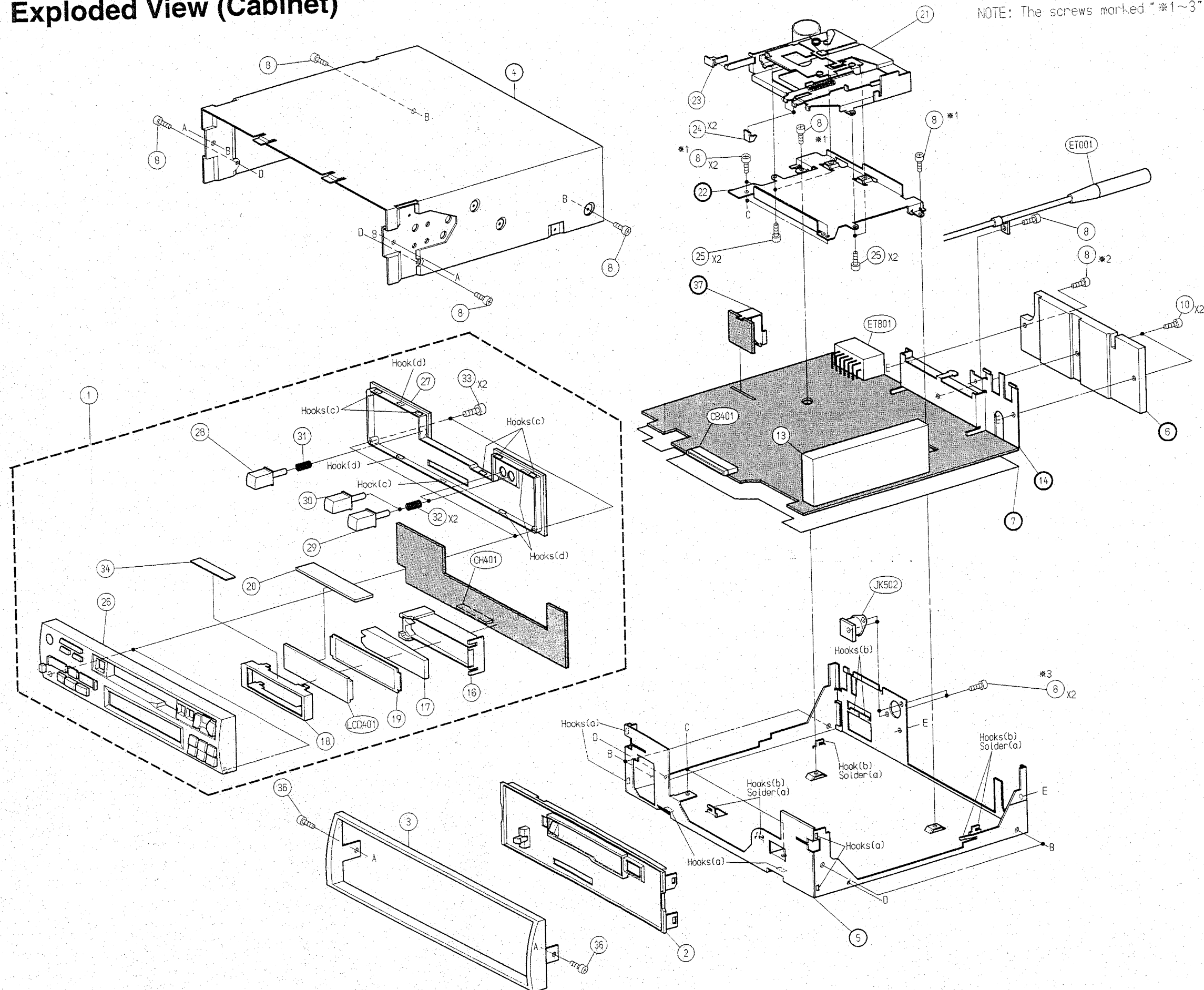
Symbol No.	Part No.	Description
Lamps		
PL401	65T75231W01	9V-85mA
PL403	65T75233W01	6V-80mA
PL404	65T75233W01	6V-80mA
PL405	65T75233W01	6V-80mA
PL406	65T75233W01	6V-80mA
PL407	65T75233W01	6V-80mA
LED		
LD401	48T65477W03	CP., SML-010PTT87 (GRN)
Capacitors		
E401	23S61523F05	ELY., 22 μ F / 6.3V
C402	08S82122F57	CP., 680pF
C403	08T15399W03	CP., 0.047 μ F
C404	08S65128F76	CP., 0.1 μ F
C405	08T15399W03	CP., 0.047 μ F
Resistors (All resistors are chip 1/10W \pm 5% unless otherwise noted.)		
R402	06S64995F61	2.2K ohm
R403	06S64995F61	2.2K ohm
R404	06S64995F61	2.2K ohm
R405	06S64995F61	2.2K ohm
R406	06S64995F65	3.3K ohm
R411	06S64995F61	2.2K ohm
R412	06S64995F65	3.3K ohm
R413	06S64995F71	5.6K ohm
R414	06S64995F79	12K ohm
R415	06S64995F89	33K ohm
R416	06S64995F61	2.2K ohm
R417	06S64995F65	3.3K ohm
R418	06S64995F71	5.6K ohm
R419	06S64995F79	12K ohm
R420	06S64995F89	33K ohm
R421	06S64995F61	2.2K ohm
R422	06S64995F65	3.3K ohm
R423	06S64995F71	5.6K ohm
R424	06S64995F79	12K ohm
R425	06S64995F89	33K ohm
R431	06S70072F13	22 ohm 1/4W
R432	06S70072F14	24 ohm 1/4W
R434	06S70072F13	22 ohm 1/4W
R435	06S70072F14	24 ohm 1/4W
R437	06S70072F14	24 ohm 1/4W

Symbol No.	Part No.	Description
R438	06S70072F14	24 ohm 1/4W
R439	06S70072F14	24 ohm 1/4W
R440	06S70072F13	22 ohm 1/4W
R441	06S70072F13	22 ohm 1/4W
R442	06S70072F57	1.5K ohm 1/4W
R443	06S70072F55	1.2K ohm 1/4W
R451	06S64995F77	10K ohm
R452	06S64995F77	10K ohm
R453	06S64995F77	10K ohm
R454	06S64995F77	10K ohm
R455	06S64995F93	47K ohm
SDK P.C.Board		
IC		
IC501	51T55490W01	TDA1581T
Transistor		
Q502	48T63417F03	CP., 2SC2412K
Capacitors		
C501	08T55390W27	TF, 0.068 μ F
E501	23S75373W07	ELY., 4.7 μ F / 35V
C502	08T55390W27	TF, 0.068 μ F
E502	23S75373W08	ELY., 0.1 μ F / 50V
C503	08T55390W27	TF, 0.068 μ F
E503	23S75372W15	ELY., 1 μ F / 50V
E504	23S75373W08	ELY., 0.1 μ F / 50V
C505	08T55390W26	TF, 0.056 μ F
C506	08T55390W23	TF, 0.033 μ F
C507	08T55390W25	TF, 0.047 μ F
C528	08T55390W25	TF, 0.047 μ F
C529	08T55390W29	TF, 0.1 μ F
Resistors (All resistors are chip 1/10W \pm 5% unless otherwise noted.)		
R501	06S64996F10	220K ohm
R502	06S64995F43	390 ohm
R503	06S64996F22	680K ohm
R504	06S64996F02	100K ohm
R505	06S64995F69	4.7K ohm
R506	06S53330F69	4.7K ohm 1/8W

Symbol No.	Part No.	Description
R507	06S64995F97	68K ohm
R508	06S64995F93	47K ohm
R511	06S64996F22	680K ohm
R512	06S64996F04	120K ohm
R513	06S64995F97	68K ohm
R514	06S64995F77	10K ohm
R515	06S64996F10	220K ohm
R516	06S64995F91	39K ohm
R517	06S64995F77	10K ohm
R518	06S64995F97	68K ohm
Miscellaneous		
CB401	09T75038W14	Connector (16P)
CH401	09T75039W16	Connector (16P)
ET001	01T15513W18	Assy., Antenna Receptacle
ET801	09T55175W16	Speaker Output & Power Supply Connector
HD1101	88E20705S01	Head
JK502	09T16653W01	DIN Connector
LCD401	65T75144W01	LCD Display
M1501	01E20699S01	Assy., Motor
S1501	40E20707S01	Switch, Slide (FWD/REV)
S1502	40E20709S01	Switch, Leaf (MUTE)
S1503	40E20706S01	Switch (POWER)

Exploded View (Cabinet)

NOTE: The screws marked "※1~3" are disassembly parts.



Cabinet Assembly Parts List

NOTE: No parts number on parts list are not supplied.

Symbol No.	Index	Part No.	Description	Symbol No.	Index	Part No.	Description
1	3-A	01V84100W01	Assy., Nose Unit				
2	5-D	13C80487W02	Assy., Front Escutcheon				
3	5-C	33C70276W01	Assy., Face Plate				
8		03S44205G29	Screw, Pan (M2.6 × 6)				
10	2-G	03S38013W02	Screw, Pan (M2.6 × 14)				
13	3-E	77T85329W01	FM/MW/LW Tuner Unit, MX-E155VE (FE001)				
16	4-C	15B70308W01	Case, LCD				
17	4-C	61A70307W01	Lens, LCD				
18	4-B	15B70310W01	Cover, LCD				
19	4-C	26A70309W01	Reflector, Sheet				
20	3-B	75T75143W02	Rubber, Electric				
21	1-F	81T65045W01	Cassette Deck Mechanism, GS75A010				
23	1-D	36A71255W01	Knob, Deck EJECT				
24	1-D	36A71256W01	Knob, Deck FF/REW				
25		03S44205G30	Screw, Pan (M2.6 × 4)				
26	3-A	13D70253W15	Assy., Nosepiece				
27	3-C	13D00558K01	Nose, Bottom				
28	3-B	36B70264W01	Knob, EJECT				
29	3-B	36B70265W01	Knob, FF				
30	3-B	36B70266W01	Knob, REW				
31	3-B	41A70267W01	Spring, EJECT				
32	3-C	41A70267W02	Spring, FF/REW				
33	2-C	03S71677F56	Screw, Pan (M1.7 × 12)				
34	3-A	14S61338W16	Insulator, Cover				
36		03S38013W13	Screw, Bind (M2.6 × 6)				

Disassembly Instructions

1. Removal of Nose Unit

- (1) Refer to the Owner's Manual (Part No. 68P80683W51):

2. Removal of Front Escutcheon

- (1) After removal of Assy., Face Plate and Top Cover, remove the Hooks (a). ... Hooks (a) (4-D, 5-D, 5-E)

3. Removal of Cassette Deck Mechanism

- (1) After removal of Front Escutcheon, remove four screws No. 8. ... Screws No.8 (※1) (1-D, 1-E, 1-F)
 (2) Disconnect all connectors to Main P.C.Board.

4. Removal of Main P.C.Board

- (1) After removal of Cassette Deck Mechanism, remove a ... Screw No.8 (※2) (2-F)
 screw No.8 and two screws No.10, and remove the Heat Sink. ... Screws No.10 (2-G)
 (2) Remove two screws No.8, remove DIN P.C.Board. ... Screws No.8 (※3) (4-F)
 (3) Remove the Solder (a) and Hooks (b) ... Solder (a), Hooks (b) (4-E)
 (4) Main P.C.Board with SDK P.C.Board and DIN P.C.Board can be removed completely.

5. Removal of Front P.C.Board

- (1) After removal of Nose Unit, remove two screws No.33 and the Hooks (c). ... Screws No.33 (2-C)
 Hooks (c) (3-B, 3-C)
 (2) Remove the Hooks (d). ... Hooks (d) (2-C, 3-C)

Packing Assembly Parts List

Symbol No.	Part No.	Description	Symbol No.	Part No.	Description
101	01V63500W15	Assy., Kit			
102	15D50406W01	Case, Inner			
103	07B64552F01	Bracket, Strap Receiver			
104	15D70318W01	Carrying, Case			
105	68P80683W51	Owner's Manual			
106	01T75469W11	Assy., Power Wire			

Packing Method View

